

REPLACEMENT CLAIMS

CLAIMS

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1. (amended) An electronic circuit for controlling a gas discharge lamp, comprising means for generating a high frequency pulse train for being applied to the electrodes of the lamp, to light the lamp, means for connecting the means for generating a high frequency pulse train to an electrical power source, and a choke to limit the current drawn by the lamp characterized in that the circuit comprises means for producing a first series of pulses and means for producing a second series of pulses independently from the first series of pulses, and means for combining additively the first and second series of pulses to produce the high frequency pulse train.

2. (amended) The electronic circuit of claim 1, wherein the means for combining additively the first and second series of pulses includes the choke which connects together the first and second series of the pulses.

3. (amended) The electronic circuit of claim 2, wherein the circuit has paired outputs each pair of which provides a steady low voltage output for being applied to heated electrodes of the lamp.

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4. (amended) The electronic circuit of claim 3, wherein the means for combining the first and second series of pulses includes an isolating transformer to electrically isolate the lamp from the power source.

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5. (amended) The electronic circuit of claim 4, wherein the means for combining the first and second series of pulses comprises a first transformer and a second transformer, the primaries of each transformer receiving respectively the first and second series of pulses, each of the secondaries having a tap for being electrically connected to the contacts of the lamp and each having another tap electrically

B2 connected to the choke so that the choke combines the secondaries and the choke in series between the contacts.

B3 6. (amended) The electronic circuit of claim 5, wherein at least one of the transformers has a secondary with a pair of taps for being electrically connected to heater elements of the lamp.

7. (amended) The electronic circuit of claim 6, wherein one of the secondary taps for the heater element is electrically connected to one of the secondary taps for the lamp contacts.

B4 oh 8. (amended) The electronic circuit of claim 1, further comprising means for shifting the phase of the first series of pulses relative to the second series of pulses, the means for combining the first and second series of pulses thereby varying the width of pulses in the pulse train.

B5 9. (amended) The electronic circuit of claim 8, further comprising means for detecting a variation in a supply voltage from the power source, the means for shifting the phase of the first series of pulses relative to the second series of pulses responding to a variation in the supply voltage so that the lamp output will be held steady as the supply voltage varies.

B6 10. (amended) The electronic circuit of claim 9, further comprising light level control means for setting a desired intensity of light output from the lamp, the means for shifting the phase of the first series of pulses relative to the second series of pulses responding to the light level control means so that the lamp output will be set at a desired level as the width of the pulses is varied.

B7 11. (amended) The electronic circuit of claim 10, further comprising motion detection means for detecting motion of an object in the vicinity of the circuit, the light level control means responding to the motion detection means so

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that the lamp output will be set at a desired level according to the detected motion as the width of the pulses is varied.

12. (amended) The electronic circuit of claim 1, in which the pulse train comprises pulses of both positive and negative polarity.

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13. (amended) The electronic circuit of claim 1, further comprising a light fitting having contacts for the gas discharge lamp.

ADDED CLAIMS

14. (new) An electronic circuit for controlling a gas discharge lamp, comprising means for generating a high frequency pulse train for being applied to the electrodes of the lamp to light the lamp, means for connecting the means for generating a high frequency pulse train to an electrical power source, and a choke to limit the current drawn by the lamp, characterized in that the circuit comprises means for producing a first series of pulses and means for producing a second series of pulses independently of the first series of pulses, and means for combining additively the first and second series of pulses to produce the high frequency pulse train, the circuit further comprising means for shifting the phase of the first series of pulses relative to the second series of pulses, the means for combining the first and second series of pulses thereby varying the width of pulses in the pulse train, and means for detecting a variation in a supply voltage from the power source, the means for shifting the phase of the first series of pulses relative to the second series of pulses responding to a variation in the supply voltage so that the lamp output will be held steady as the supply voltage varies.

15. (new) The electronic circuit of claim 14, further comprising light level control means for setting a desired intensity of light output from the lamp, the means for shifting the phase of the first series of pulses responding to the light level control means so that the lamp output will be set at a desired level as the width of the pulses is varied.

16. (new) The electronic circuit of claim 10, further comprising motion-detection means for detecting motion of an object in the vicinity of the circuit, the light level control means responding to the motion detection means so that the lamp output will be set at a desired level according to the detected motion as the width of the pulses is varied.
